F-05-23 PLW

BLM-CARLSBAD FIELD OFFICE

Form 3160-3 (August 1999)

EC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT NO NSL

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

LDB 3/24/05

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. NMNM89052
R-111-POTASH	6. If Indian, Allottee or Tribe Name
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone	7. If Unit or CA Agreement, Name and No.
2. Name of Operator: DEVON ENERGY PRODUCTION CO LP Contact: NORVELLA ADAMS nvella.adams@dvn.com	8. Lease Name and Well No. APACHE 25 FEDERAL 16
3a. Address: 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY OK 73102	3b. Phone No. (include area code) Ph: 405-552-8198
	9. API Well No. 30-015-34328
	10. Field and Pool, or Exploratory LOS MEDANOS Morrow
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface NWSW ~~1980FSL 660FWL~~ 2310 1980 Per SN dated 6/8/05 NESW At proposed prod. zone NWSW ~~1980FSL 660FWL~~ 2310 1980	11. Sec., T., R., M., or Blk. and Survey or Area Sec 25 T22S R30E Mer NMP SME: BLM
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 45 MILES FROM JAL, NM	12. County or Parish EDDY 13. State NM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of Acres in Lease 17. Spacing Unit dedicated to this well 320.00
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 14500 MD 20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3327 GL	22. Approximate date work will start 05/15/2005 23. Estimated duration 45 DAYS

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	NORVELLA ADAMS Ph: 405-552-8198	03/17/2005

Title: AUTHORIZED REPRESENTATIVE

Approved by (Signature)	Name (Printed/Typed)	Date
Linda S. C. Rundell	Linda S. C. Rundell	9/9/05

Title: STATE DIRECTOR

Office: NM STATE OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

acs 3/21/05

Electronic Submission #55129 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad
Committed to AFMSS for processing by LINDA ASKWIG on 03/17/2005 (05LA0524AE)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Witness Surface & Intermediate Casing

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

NSL - 5242

Any new pit constructed must be permitted under Rule 50. - Meet requirements

05 03:42PM

Additional Operator Remarks:

Devon Energy Production Company, LP proposes to drill a Morrow well for commercial quantities of oil and gas. If the well is deemed noncommercial the well bore will be plugged and abandoned per Federal regulations.

Please see attachments.

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals

SUBMIT IN TRIPLICATE

FORM APROVED
OMB NO. 1004-0135
EXPIRES: NOVEMBER 30, 2000

1a. Type of Well ☐ Oil Well ☑ Gas Well ☐ Other

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY, LP

3. Address and Telephone No.
20 North Broadway, Ste 1500, Oklahoma City, OK 73102 **405-552-8198**

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
1980 FSL & 660 FWL L Sec 25 T22S R30E

5. Lease Serial No.
NMNM89052

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Well Name and No.
Apache 25 Federal 16

9. API Well No.

10. Field and Pool, or Exploratory
Los Medranos; Morrow

12. County or Parish 13. State
Eddy **NM**

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OS SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. . Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work and approximate duration thereof. If the proposal deepen directionally or recomplete horizontally, give subsurface location and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirement, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

Devon Energy Production Co., LP respectfully requests permission to move the surface location to meet requirements specified by BLM due mining impact.

Old Location: 1980 FSL & 660 FWL

New Location: 2310 FSL & 1980 FWL UL K Sec 25-22S-30E

14. I hereby certify that the foregoing is true and correct

Signed _____ Name **Norvella Adams** Title **Sr. Staff Eng. Tech** Date **8-Jun-05**

(This space for Federal or State Office use)

Approved by _____ Title **STATE DIRECTOR** Date 9/9/05
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name DEVON ENERGY PRODUCTION CO LP Well Name & No. 16-APACHE 25 FEDERAL
Location 2310 FS L & 1980 FW L Sec. 25 T. 22 S, R 30 E.
Lease No. NM-89052 County EDDY State New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (stips attached)
( ) San Simon Swale (stips attached)
( ) Flood plain (stips attached)
( ) Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the (✓) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(✓) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____inches in depth. Approximately _____cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other.

III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ¼ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0

(✓) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

( ) C. Seed Mixture 3 (Shallow Sites)
Side oats Grama (*Boute curtipendula*) 1.0

( ) D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobollud airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

( ) Other.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.
The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

(1) Lined as specified above and

(2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Devon Energy Production Company, L.P.
Well Name & No. Apache 25 Federal # 16
Location: 2310 ~~1980~~' FSL, ~~660~~' FWL, Section 25, T. 22 S., R. 30 E., Eddy County, New Mexico
Lease: NM-89052 1980 per SN Detail 6/15/05

II. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

   A. Well spud

   B. Cementing casing: 13-3/8 inch 9-5/8 inch 7 inch 4-1/2 inch liner

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 620 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is to be sufficient to circulate to the surface.

3. The minimum required fill of cement behind the 7 inch production casing is to be sufficient to circulate to the surface.

4. The minimum required fill of cement behind the 4-1/2 inch production liner is to be sufficient to reach the top of the liner.

5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

ACS
3 21 2005

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 10000 psi.

Operator plans to use a 5000 psi double ram type preventer and a 3000 psi bag-type (Hydril) preventer on 13-3/8 inch casing and test to 1200 psi with rig pumps before drilling out the casing shoe. After setting 9-5/8 inch casing, and prior to drilling out the casing shoe, the BOP's and Hydril will be tested by an independent tester per BLM Drilling Operations Order #2. BOP's will be upgraded to 10,000 psi after 7 inch production casing is set.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
   - The tests shall be done by an independent service company.
   - The results of the test shall be reported to the appropriate BLM office.
   - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
   - Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

eos
3 21 2005

BLM Serial Number: NM-89052
Company Reference: DEVON ENERGY PRODUCTION CO LP
Well No. & Name: 16-APACHE 25 FEDERAL

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting therefrom, the Authorized

Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/__/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/✓/ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

/__/ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

/_x_/ 400 foot intervals.

/___/ _____ foot intervals.

/___/ locations staked in the field as per spacing intervals above.

/___/ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

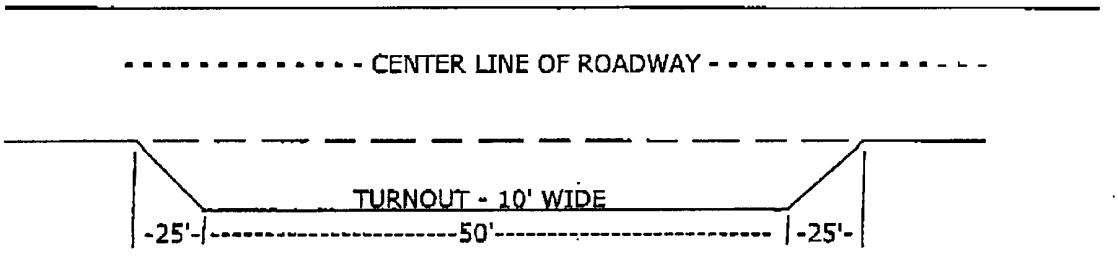
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less
than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: None.

United States Department of the Interior
Bureau of Land Management
Roswell Field Office

Refer To: 3160-3

March 18, 2005

To: AFM, Land and Minerals, RFO

From: Petroleum Geologist, RFO

Subject: Geologic Review of Application for Permit to Drill

Operator: Devon Energy Production Company, L.P.

Well Name and Number: Apache "25" Federal No. 16

Location: 1980' FSL & 660' FWL

Section: 25, T. 22 S., R. 30 E., NMPM

County: Eddy State: NM

Lease No.: NM-89052 Date APD Rec'd: 3/17/05

1. Surface Elevation x Surface Geology x

2. Geologic Marker Tops (from reports on surrounding wells):

Geologic Marker	Depth
Delaware	3894'
Bone Spring	7777'
Wolfcamp	11204'
Strawn	12428'
Atoka	12759'
Morrow	12951'

Marker tops from Apache 13 Federal 1, SE¼NE¼, Sec. 13, T. 22 S., R. 30 E.

3. Fresh Water Information: Domestic and Stock water is obtained from the Chinle, Santa Rosa and Dewey Lake Formations. State Engineers quality listing shows water well in sec. 35 used for stock at a depth of 528 ft. The well was drilled in 1988. An inspection of the logs for wells in the vicinity indicate the interval occurs in the Dewey Lake Formation.

Originally I had thought the interval was near the base of the Dewey lake Fm. However, a letter from DOE to the BLM indicates a shallower depth for the water bearing zone in the formation. Still the entire formation needs to be protected as it is impractical to try and get a good seal around the shoe in redbeds because these types of deposits are readily washed out by turbulence when drilling out from the surface casing.

A telephone conversation (12/17/02) with Mr. Doug Lind (DOE) also verified the interval was in the Dewey Lake Formation.

According to the log for the James Ranch No.31 well located in the NE¼SW¼,sec. 36, being the nearest well with a shallow log to the subject wells, the top of the Rustler has occurs at a depth of 598' with just 5' of anhydrite underlain by sand and then into Anhydrite at 617'. I recommend setting the surface at 620'. However, if the salt occurs at a shallower depth (which can be readily identified by drilling time on the geolograph usually 3' to 4'/min as opposed to anhydrite 1' to2'/min) the operator is to set casing 10 to 15 ft above the salt..

Deepest Expected Fresh Water: 598'

Does Surface Casing cover all anticipated fresh water zones? Yes

Controlled Water Basin:

Capitan Carlsbad x Roswell Lea No basin

Remarks: definitely witness surface casing.

4. Geologic Hazards?

H2S X Karst X Abnormal Pressures X Other X

Remarks:

Although no H2S has been reported in the area, It is always a possible hazard. Possible abnormal pressures in the Wolfcamp and high pressure gas down through the Pennsylvanian section. Possible lost circulation and water flows in the Delaware and Bone Springs. Possible water flows in the Salado Group and Castile Formation. Possible Karst type structures due to shallow occurrences of carbonates, halite and/or gypsum in the Roswell District.

5. Other Mineral Deposits: Possible salt in the Rustler, Salado and Sastile Group; possible potash in the Salado Group.

6. Potash:

Secretary's
Oil-Potash Area x R111-P Area x Not Applicable

Remarks: Recommend a Gamma-Ray/Neutron, Litho-Density, or Neutron-Density log be run from the base of the Salado to the surface, with the cable speed not to exceed 30 ft./min.

7. References:

New Mexico State Engineer's Water Well List;

Lea County H2S List

Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and Ground-Water Conditions of Southern Lea County, New Mexico; Ground-Water Report No. 6, New Mexico Bureau of Mines and Mineral Resources, Campus Station, Socorro, New Mexico.

Geohydrology Associates, Inc. Collection of Hydrologic Data Eastside Roswell Range EIS Area, New Mexico, 1978

Historical Oil and Gas well files

9. No active mining claims are located in this vicinity.

Geologist Signature: /s/ J.S. Simitz Date: 3/18/05

DRILLING PROGRAM

Devon Energy Production Company, LP
Apache 25 Federal 16
Surface Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM
Bottom hole Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

2. Estimated tops of geological markers:

a.	Rustler	340'
b.	Salado	630'
c.	Delaware	3810'
d.	Bone Spring	7635'
e.	Wolfcamp	10925'
f.	Strawn	12465'
g.	Atoka	12785'
h.	Morrow	13350'
i.	Lower Morrow	14150'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

a.	Upper Permian Sands		Fresh Water
b.	Delaware	3810'	Oil/Gas
c.	Bone Spring	7635'	Oil/Gas
d.	Wolfcamp	10925'	Oil/Gas
e.	Strawn	12465'	Gas
f.	Atoka	12785'	Gas
g.	Morrow	13350'	Gas
h.	Lower Morrow	14150'	Gas

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 620' and circulating cement back to surface. Potash and salt will be protected by setting 9 5/8" casing at 3850' and circulating cement to surface. The 7" casing will be set through the Wolfcamp to 12,050'circulating cement to surface. The 4 ½ "liner will be set and cemented through the Morrow to 14,500'.

4. Casing Program:

Hole Size	Interval	OD Csg	Weight	Grade	Type
30"	0' –40'	20"		Conductor	
17 ½ "	0' – 620'	13 3/8"	48#	H40	ST&C
12 ¼"	0' – 3850'	9 5/8"	40#	J55	LT&C
8 ¾ "	0' – 12050'	7"	26#	HCP110	LT&C
6 1/8"	12050-14500	4 ½"	13.5	HCP110	LT&C

5. **Cement & Setting Depth:**

a.	20"	Conductor	Cement with ready-mix to surface.
b.	13 3/8"	Surface	Cement to surface with 360 sx Class C + 4% Bentonite + 2% Calcium Chloride + 0.25 lbs/sack Cello flake followed by 250 sx Class C + Calcium Chloride + 0.25 lbs/sack Cello flake
c.	9 5/8"	Intermediate	Cement to surface with 980 sx Poz C (35:65) + 6% Bentonite + 5% Salt + 0.25 lbs/sack Cello flakes followed by 200 sx Poz C (60:40) + 4% Sodium Metasilicate + 0.25 lb/sx Cello flakes
d.	7"	Production	Cement to surface 1st stage with 592 sx Poz H + 5% Salt + 1% EC +0.2% CD-32 + 3 lbs/sx LCM-1 + 0.6% FL–52A + 0.1% Sodium Metasilicate. 2nd stage with 150sx Poz C + 3% Salt + 0.25% R-3 + 0.25 lbs/sx Cello flake + 3 lbs/sx LCM-1 + 0.3% FL-52A + 6% Bentonite followed by 627 sx Poz C + 1% Salt + 0.5% BA-10+ cello flake + 0.25 lbs/sx Cello flake + 2 lbs/sx Kol Seal + 4% MPA-1. 3rd stage 221 sx Poz C + 5% Salt + 0.25 lbs/sx cello flake + 6% Bentonite followed by 150 sx Poz C + 5% Salt + 0.25 lbs/sx Cello Flake + 0.4% Sodium Metasilicate + 4% MPA-1
e.	4 ½"	Liner	Cement with 261 sx Poz Class H (15:61) + 2% Potassium Chloride + 0.6% FL-25 + 0.6% FL-52A + 0.4% CD-32 + 1 % EC-1 + 3 lbs/sx LCM-1 + 0.25 lbs/sx Cello Flake + 0.005 FP-13L + 0.01% Static free

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

6. **Pressure Control Equipment:**

The blowout preventor equipment (BOP) shown in Exhibit # B (A) will consist of a (5M system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (3000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. Both BOP's will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. **All BOP's and associated equipment will be tested to 1200 psi with the rig pump before drilling out the 13 3/8" casing shoe (70% of 48#, H-40 casing).** Prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

Pipe rams will be operated and check each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

7. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – 620'	8.4	28 – 29	NC	Fresh Water
620-3850'	10.0	28 – 29	NC	Brine
3850' – 9000'	8.4 – 8.8	28 – 29	NC	Cut Brine
9000 – 14,500'	10.0 – 13.0	30 – 32	12-15 cc	Brine/XCD

The necessary mud products for weight addition and fluid loss control will be on location at all times.

8. **Auxiliary Well Control and Monitoring Equipment:**
   a. A Kelly cock will be in the drill string at all times.
   b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
   c. Hydrogen Sulfide detection equipment will be in operations after drilling out the 13 3/8" casing shoe until the 9 5/8" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

9. **Logging, Coring, and Testing Program:**
   a. Drill stem tests will be based on geological sample shows.
   b. The open hole electrical logging program will be:
      i. Total Depth to Intermediate Casing — Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
      ii. Total Depth to Surface — Compensated Neutron with Gamma Ray
      iii. No coring program is planned
      iv. Additional testing will be initiated subsequent to setting the 7" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

10. **Potential Hazards:**
   a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 7500 psi and Estimated BHT 200°.

11. **Anticipated Starting Date and Duration of Operations:**
   a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

SURFACE USE PLAN
Devon Energy Production Company, LP
Apache 25 Federal 16
Surface Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM
Bottom hole Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM

1. **Existing Roads:**
   a. The well site and elevation plat for the proposed are reflected on Exhibit 2. The well was staked by Basin Surveys of Hobbs NM.
   b. All roads into the location are depicted on Exhibit 3.
   c. Directions to Location: From Hobbs, Go 35.7 miles west to WIPP Road; then south on WIPP Road for 11.1 miles to lease road 0.6 mile south of MM 2; then southwest on lease road for 1.7 mile; then south for 0.8 mile; then west for 0.6 mile to the #12 and proposed lease road.
2. **Access Road**
   a. Exhibit #3 shows the existing lease road. Approximately 1012' of new access road will be required. It will be constructed as follows:
   b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
   c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
   d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. **Proposed Facilities**
   a. In the event the well is found productive, a tank battery would be constructed.
   b. The tank battery, all connections and all lines will adhere to API standards.
   c. If the well is productive, rehabilitation plans are as follows:
      i. The reserve pit will be closed pursuant to NM OCD rules and guidelines.
      ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

4. **Methods of Handling Waste Material:**
   a. Drill cuttings will be disposed of in the reserve pits.
   b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
   c. The supplier will pick up salts, including broken sacks, remaining after completion of well.
   d. Wastewater from living quarters will be drained into a hole with a minimum depth of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A portable chemical toilet will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
   e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be closed. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. The reserve pit will be closed pursuant to NM OCD rules and guidelines. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.

5. **Well Site Layout**
   a. Exhibit D shows the proposed well site layout.
   b. This exhibit indicates proposed location of reserve and sump pits and living facilities.
   c. Mud pits in the active circulating system will be steel pits & the reserve pit will be lined with a 12 mil synthetic woven liner
   d. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. After the rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed. If the well is a producer, the reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

6. **Other Information:**
   a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds.
   b. The surface and minerals are owned by the US Government and is administered by the Bureau of Land Management. The surface is of limited use except for the grazing of livestock and the production of oil and gas.
   c. An archaeological survey will be forwarded to the Bureau of Land Management.
   d. There are no dwellings within 2 miles of location.

Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

James Blount
Operations Engineer Advisor

Devon Energy Production Company, L.P.
20 North Broadway
Oklahoma City, OK 73102-8260

(405) 228-4301 (office)
(405) 834-9207 (Cellular)

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-3371 (office)
(505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: _____ Date: March 17, 2005

Norvella Adams
Sr. Staff Engineering Technician

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
Apache 25 Federal 16
Surface Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM
Bottom hole Location: 1980 FSL & 660 FWL, Unit L, Sec 25- T22S R30E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:	**Devon Energy Production Company, LP**
Street or Box:	**20 North Broadway, Suite 1500**
City, State:	**Oklahoma City, Oklahoma**
Zip Code:	**73102-8260**

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.:	**NMNM89052 and NMNM91059**
Legal Description of Land:	**Lease # NMNM89052 - SW and the S/2 of SE.**
Formation(s):	**Lease # NMNM91059 - N/2 of SE**
Bond Coverage:	**320 acres 25-T22S-R30E**
BLM Bond File No.:	**Morrow**
	Nationwide
	CO-1104
Authorized Signature:	**Norvella Adams**
Title:	**Sr. Staff Engineering Technician**
Date:	3/17/05

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. If H2S is present in this area the following will apply.
2. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   a. Characteristics of H2S
   b. Physical effects and hazards
   c. Proper use of safety equipment and life support systems.
   d. Principle and operation of H2S detectors, warning system and briefing areas
   e. Evacuation procedures, routes and first aid.
   f. Proper use of 30-minute pressure demand air pack.

3. H2S Detection and Alarm System
   a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

4. Windsock and/or wind streamers
   a. Windsock at mud pit area should be high enough to be visible
   b. Windsock at briefing area should be high enough to be visible
   c. There should be a windsock at entrance to location

5. Condition Flags and Signs
   a. Warning Sign on access road to location
   b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

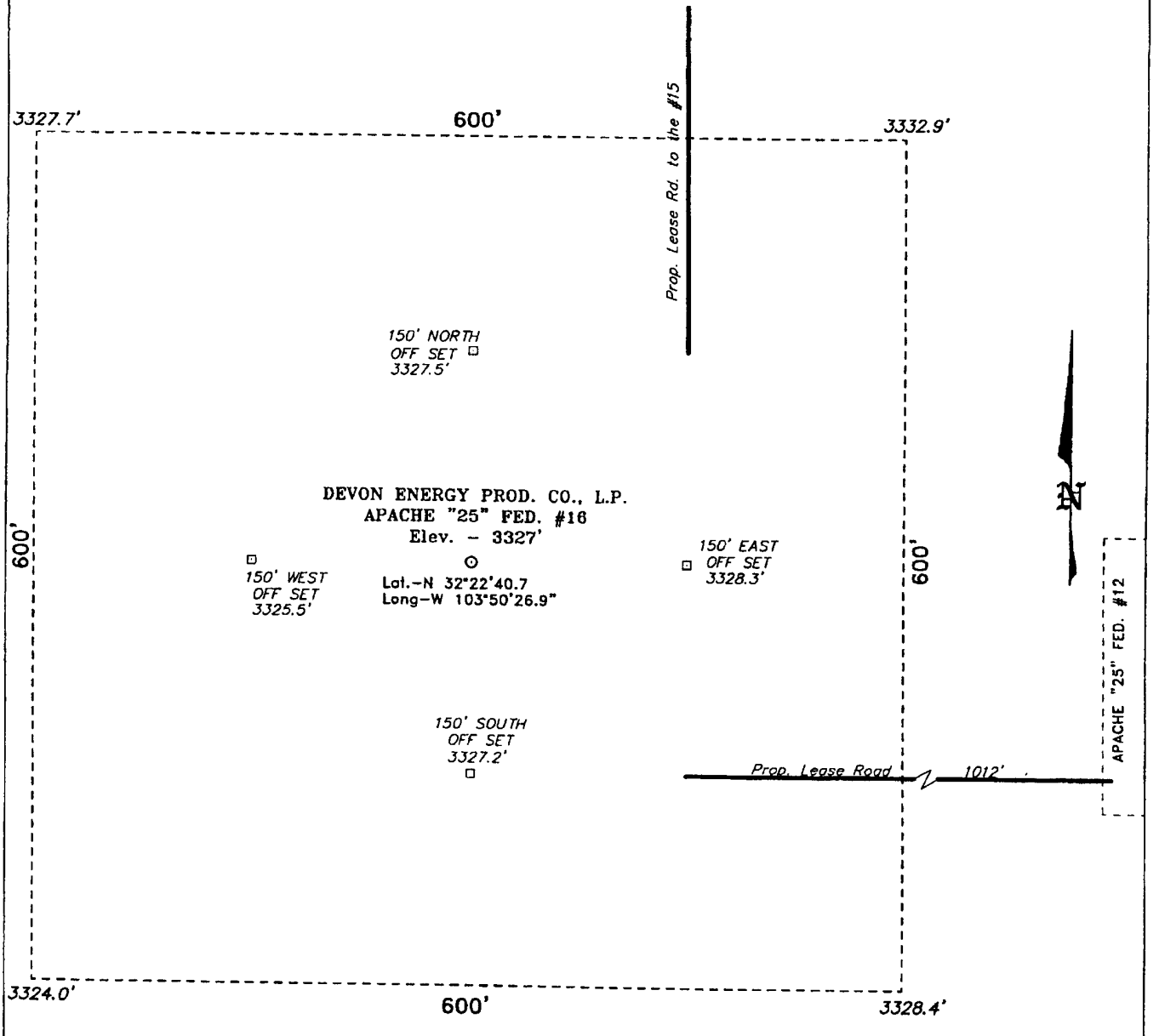
6. Well Control Equipment
   a. See Exhibit "B (A)" & "E"

7. Communication
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate
   c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

8. Drill stem Testing
   a. Exhausts will be watered
   b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
   c. If the location is near to a dwelling a closed DST will be performed.

9. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
   If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

SECTION 25, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

Directions to Location:

FROM HOBBS, GO 35.7 MILES WEST TO WIPP ROAD; THENCE SOUTH ON WIPP ROAD FOR 11.1 MILES TO LEASE ROAD 0.6 MILE SOUTH OF MM 2; THENCE SOUTHWEST ON LEASE ROAD FOR 1.7 MILE; THENCE SOUTH FOR 0.8 MILE; THENCE WEST FOR 0.6 MILE TO THE #12 AND PROPOSED LEASE ROAD.

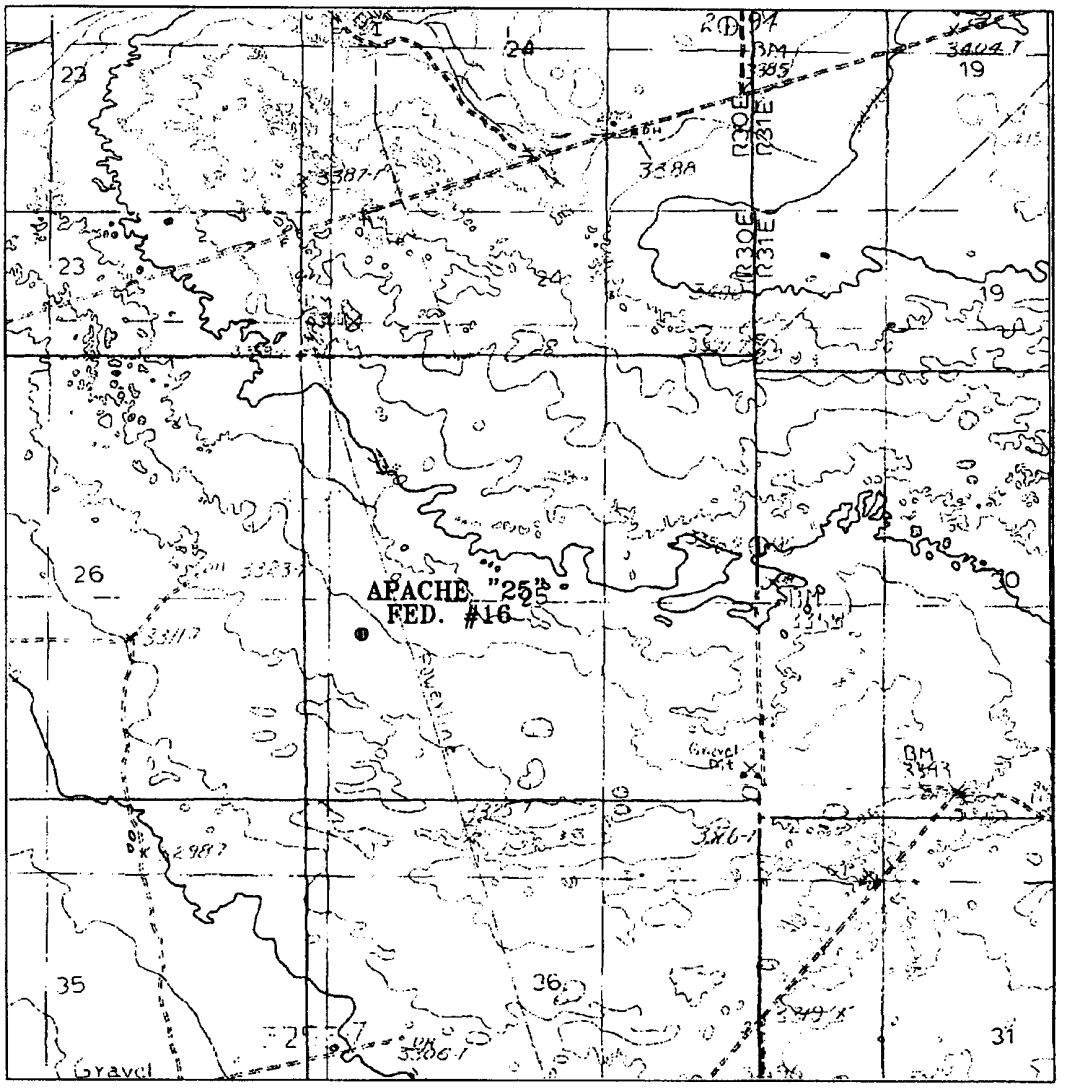
DEVON ENERGY PROD. CO., L.P.

REF: APACHE "25" FED. No. 16 / Well Pad Topo

THE APACHE "25" FED No. 16 LOCATED 1980' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF SECTION 25, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 5122	Drawn By: K. GOAD		
Date: 02-16-2005	Disk: KJG CD#4 - 5122A.DWG	Survey Date: 02-14-2005	Sheet 1 of 1 Sheets

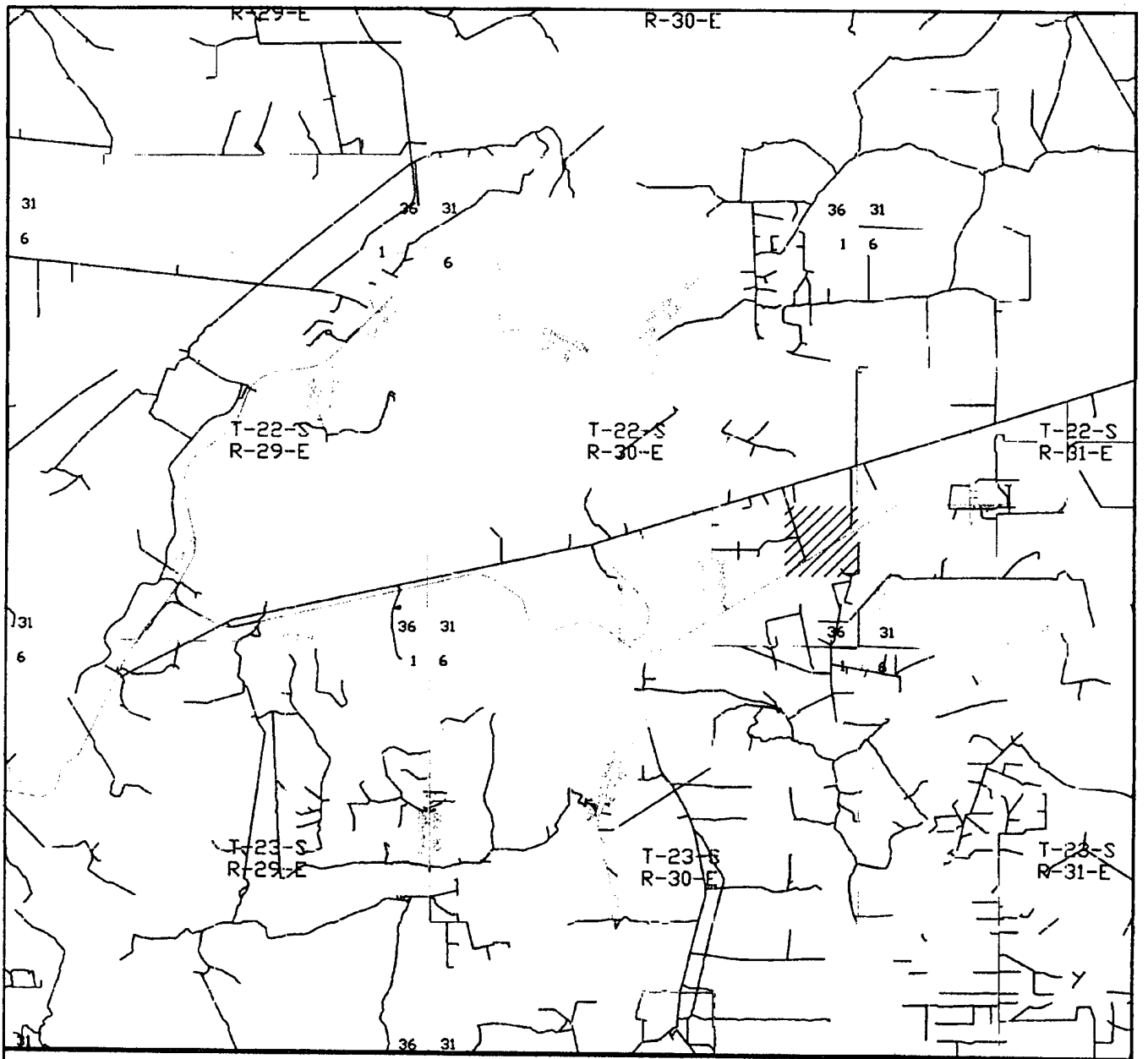


APACHE "25" FEDERAL #16
Located at 1980' FSL and 660' FWL
Section 25, Township 22 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

Basin
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number: 5122AA - KJG #1
Survey Date: 02-14-2005
Scale: 1" = 2000'
Date: 02-16-2005

DEVON ENERGY PROD. CO., L.P.



APACHE "25" FEDERAL #16
Located at 1980' FSL and 660' FWL
Section 25, Township 22 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
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P.O. Box 1786
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(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	5122AA - KJG #1
Survey Date:	02-14-2005
Scale:	1" = 2 miles
Date:	02-16-2005

DEVON ENERGY PROD. CO., L.P.

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B (A)

Lea County, New Mexico

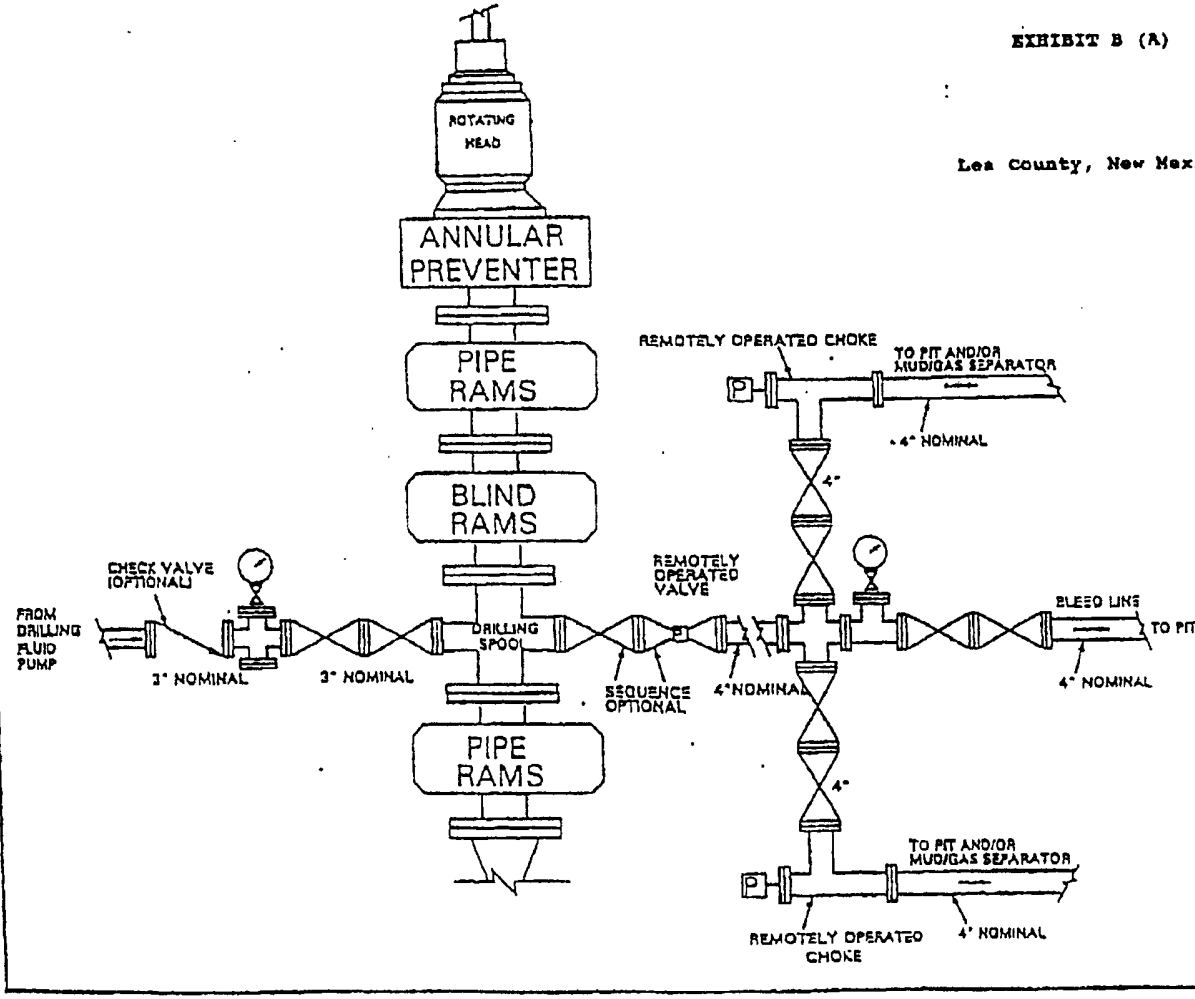
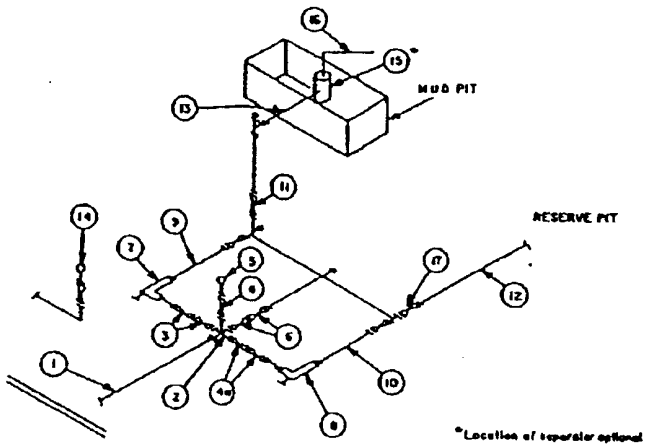


Exhibit E

MINIMUM CHOKE MANIFOLD
3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP



MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			10,000 MWP		
No.		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate ☐ Plug ☐(2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate ☐ Plug ☐(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

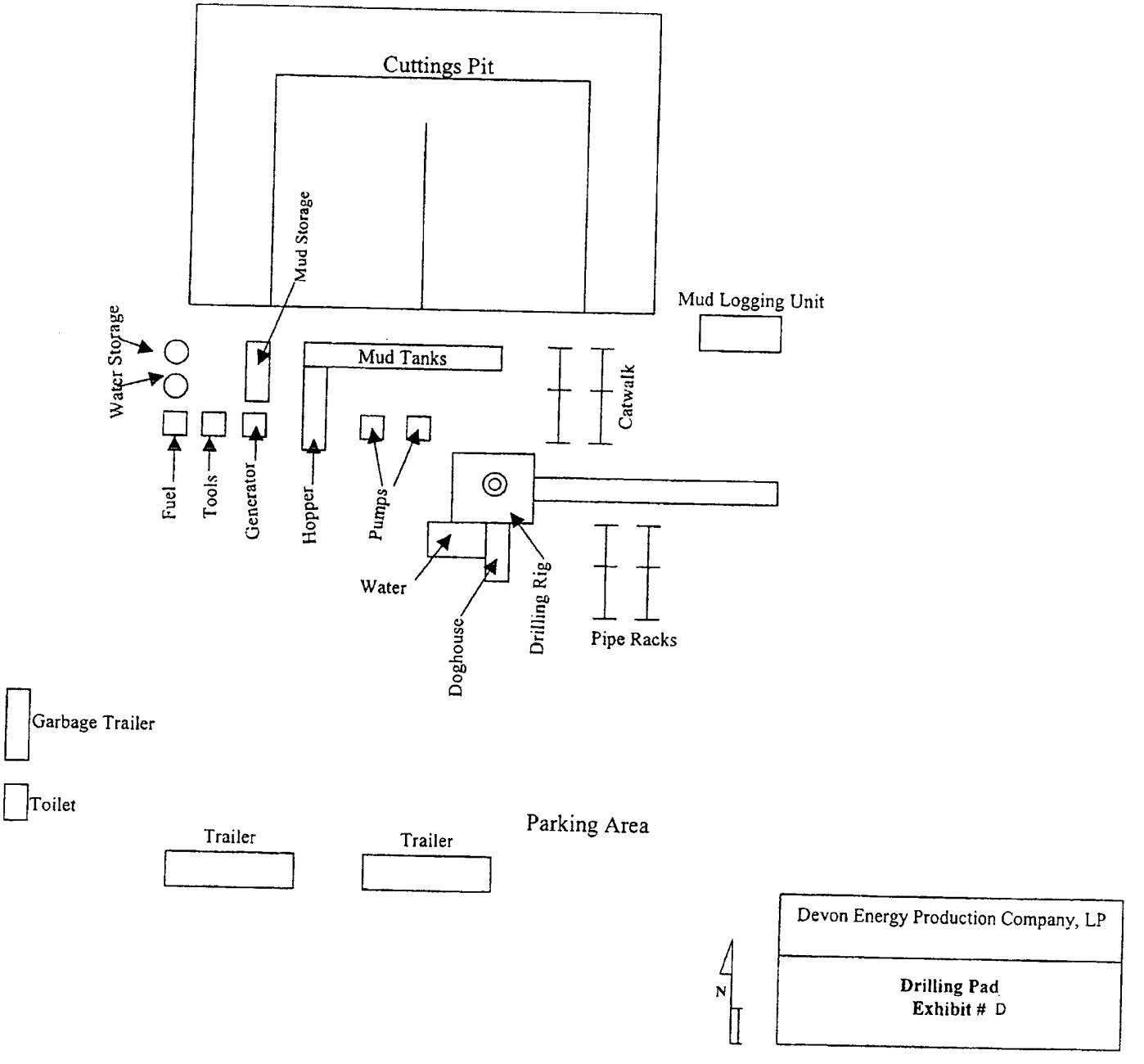
(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.


Cuttings Pit
Mud Storage
Mud Logging Unit
Water Storage
Mud Tanks
Catwalk
Fuel
Tools
Generator
Hopper
Pumps
Water
Doghouse
Drilling Rig
Pipe Racks
Garbage Trailer
Toilet
Trailer
Trailer
Parking Area
N
Devon Energy Production Company, LP
Drilling Pad
Exhibit # D

Well name:	Apache 25 Fed 16
Operator:	Devon Energy
String type:	Surface
Location:	New Mexico

Design parameters:

Collapse
Mud weight: 8.700 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 649 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 649 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 541 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 84 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 620 ft
Minimum Drift: 2.250 in

Non-directional string.

Re subsequent strings:
Next setting depth: 3,500 ft
Next mud weight: 10.000 ppg
Next setting BHP: 1,818 psi
Fracture mud wt: 12.500 ppg
Fracture depth: 1,000 ft
Injection pressure 649 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	620	13.375	48.00	H-40	ST&C	620	620	12.59	7689

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	280	740	2.64	649	1730	2.66	29.8	322	10.82 J

Prepared by: Bill Dougherty
Devon Energy

Date: March 14,2005
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 620 ft, a mud weight of 8.7 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	Apache 25 Fed 16
Operator:	Devon Energy
String type:	Intermediate
Location:	New Mexico

Design parameters:

Collapse
Mud weight: 10.200 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,042 psi
Internal gradient: 0.433 psi/ft
Calculated BHP 2,709 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 3,266 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 129 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 620 ft
Minimum Drift: 2.250 in

Non-directional string.

Re subsequent strings:
Next setting depth: 12,050 ft
Next mud weight: 10.000 ppg
Next setting BHP: 6,260 psi
Fracture mud wt: 16.500 ppg
Fracture depth: 3,850 ft
Injection pressure 3,300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	3850	9.625	40.00	J-55	LT&C	3850	3850	8.75	34939

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2040	2570	1.26	2709	3950	1.46	154	520	3.38 J

Prepared by: Bill Dougherty
Devon Energy

Date: March 14,2005
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 3850 ft, a mud weight of 10.2 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	APH 25 F 16
Operator:	Devon Energy
String type:	Production
Location:	New Mexico

Design parameters:

Collapse
- Mud weight: 13.000 ppg
- Internal fluid density: 2.000 ppg

Burst
- Max anticipated surface pressure: 2,541 psi
- Internal gradient: 0.464 psi/ft
- Calculated BHP 8,138 psi
- Annular backup: 8.34 ppg

Minimum design factors:

Collapse:
- Design factor 1.125

Burst:
- Design factor 1.00

Tension:
- 8 Round STC: 1.80 (J)
- 8 Round LTC: 1.80 (J)
- Buttress: 1.60 (J)
- Premium: 1.50 (J)
- Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 9,687 ft

Environment:
- H2S considered? No
- Surface temperature: 75 °F
- Bottom hole temperature: 244 °F
- Temperature gradient: 1.40 °F/100ft
- Minimum section length: 1,000 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	12050	7	26.00	HCP-110	LT&C	12050	12050	6.151	125260

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	6886	7800	1.13	2917	9950	3.41	313.3	693	2.21 J

Devon Energy

Date: March 14,2005
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 12050 ft, a mud weight of 13 ppg An internal gradient of .104 psi/ft was used for collapse from TD
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	APH 25 F 16
Operator:	Devon Energy
String type:	Liner: Production
Location:	New Mexico

Design parameters:

Collapse

Mud weight:	12.000 ppg
Internal fluid density:	1.200 ppg

Burst

Max anticipated surface pressure:	2,304 psi
Internal gradient:	0.464 psi/ft
Calculated BHP	9,039 psi
Annular backup:	8.34 ppg

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 14,022 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	206 °F
Temperature gradient:	0.90 °F/100ft
Minimum section length:	1,000 ft

Liner top: 11,800 ft
Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2700	4.5	13.50	HCP-110	LT&C	14500	14500	3.795	15129

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	8135	10680	1.31	2757	12410	4.50	36.5	338	9.27 J

Devon Energy

Date: March 15,2005
Oklahoma City, Oklahoma

Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 14500 ft, a mud weight of 12 ppg An Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Los Medranos; Morrow

Property Code	Property Name	Well Number
	APACHE "25" FEDERAL COMM	16

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION CO., L.P.	3340'

Surface Location

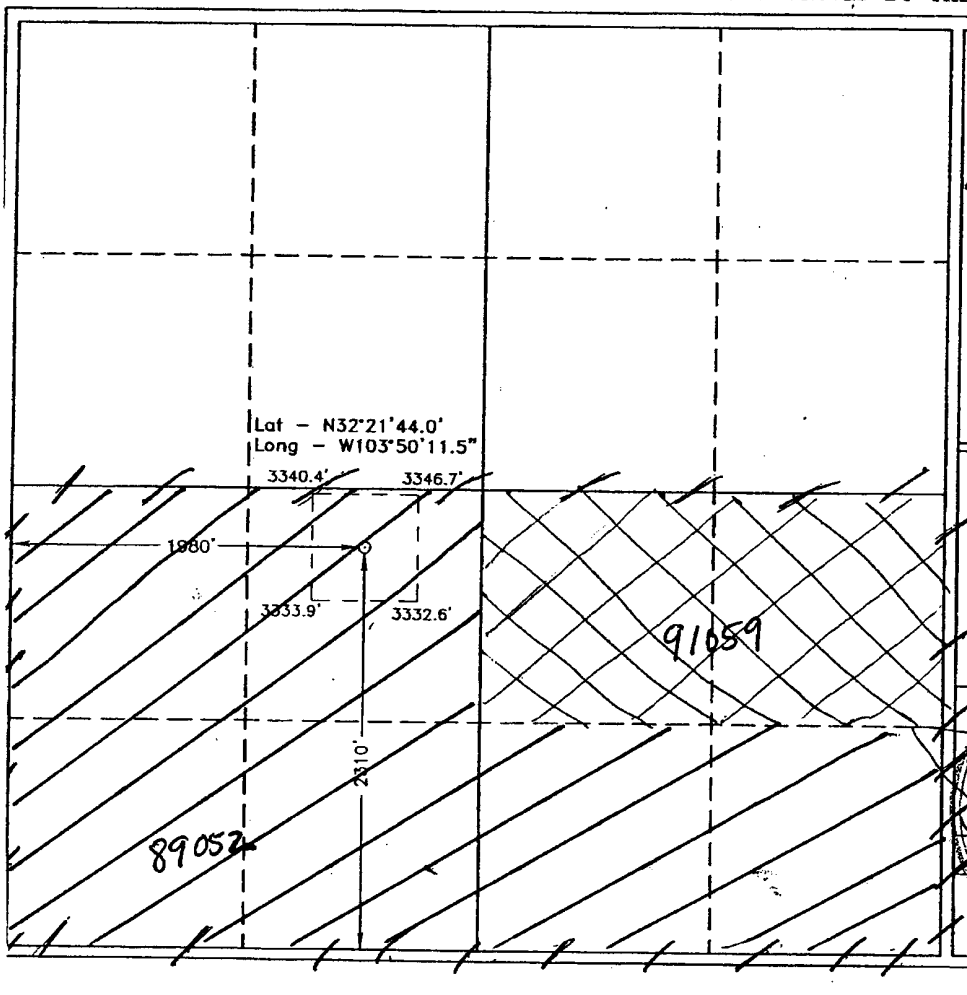
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	25	22 S	30 E		2310	SOUTH	1980	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Norvella Adams
Printed Name

Sr. Staff Eng. Tech.
Title

June 08 2005
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

MAY 26, 2005
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 5448

Certificate No. Gary L. Jones 7977

BASIN SURVEYS